

In the Claims:

1. (original) A circuit arrangement for operating at least one
2 light-emitting diode (LED) in an electrical circuit at a
3 service voltage (UB), which is greater than the forward
4 voltage of the at least one light-emitting diode (LED)
5 which is to be operated,
 - 6 • wherein adjustment of the current flowing through the
7 light-emitting diode (LED) is performed by means of
8 pulse-width modulation of a first switching means
9 (S1), which is switched between a first terminal of
10 the service voltage (UB) and the light-emitting diode
11 LED,
 - 12 • wherein between the first terminal of the service
13 voltage (UB) and the at least one light-emitting diode
14 (LED) a first reactance formed by the first resistance
15 (R1) and the first capacitor (C1) is arranged,
16 characterized in that
 - 17 • the at least one light-emitting diode (LED) is
18 connected via a second reactance formed by the second
19 resistance (R2) and the first capacitor (C2) to the
20 second terminal of the service voltage,
 - 21 • between the two connections of the at least one
22 light-emitting diode (LED) and the two reactances (R1-C1,
23 R2-C2) a full-wave rectifier diode bridge of four
24 diodes (D1, D2, D3, D4) being switched, and
 - 25 • at a tap between the first switching means (S1) and
26 the at least one light-emitting diode (LED) a
27 connection, switchable via a second switching means
28 (S2), to the second terminal of the service voltage

29 exists, the second switching means (S2) being operated
30 in push-pull action to the first switching means (S1).

1 2. (original) A circuit arrangement according to claim 1,
2 characterized in that the service voltage is a d.c. voltage
3 and in that the service voltage is applied at the first
4 terminal and the ground potential is applied at the second
5 terminal and in that the full-wave rectifier circuit is
6 formed of four diodes (D1, D2, D3, D4), the diodes being
7 interconnected as follows:

- 8 ● the first diode (D1) is polarized in forward direction
9 and is switched between the first reactance (R1-C1)
10 and the positive terminal (U_{LED+}) of the light-emitting
11 diode (LED),
- 12 ● the second diode (D2) is polarized in the inverse
13 direction and is switched between the first reactance
14 (R1-C1) and the negative terminal (U_{LED-}) of the
15 light-emitting diode (LED),
- 16 ● the third diode (D3) is polarized in forward direction
17 and is switched between the second reactance (R2-C2)
18 and the negative terminal (U_{LED-}) of the light-emitting
19 diode (LED),
- 20 ● the fourth diode (D4) is polarized in the inverse
21 direction and is switched between the second reactance
22 (R2-C2) and the positive terminal (U_{LED+}) of the
23 light-emitting diode (LED).

1 3. (original) A circuit arrangement according to claim 2,
2 characterized in that for level adaptation, the pulse-width
3 modulated signal (PWM) is connected to the basis of a level

4 transistor (T0) of the circuit arrangement, of which the
5 collector is connected to the ground (GND) and its emitter
6 is connected to the service voltage (UB) as well as to the
7 bases of a first White's emitter follower for the purpose
8 of current amplification, which first White's emitter
9 follower is substantially composed of a first NPN
10 transistor (T1) and a first PNP transistor (T2), the
11 emitter of the NPN transistor (T1) being connected to the
12 emitter of the PNP transistor (T2) and to the first
13 resistance (R1), and the collector of the NPN transistor
14 (T1) being connected to the service voltage (UB), and the
15 collector of the PNP transistor (T2) being connected to the
16 ground (GND).

1 4. (original) A circuit arrangement according to claim 3,
2 characterized in that for limiting the rise time of the
3 signal (PWM) modulated in pulse-width, and amplified in
4 current, a second White's emitter follower from a second
5 NPN transistor (T3) and a second PNP transistor (T4) is
6 connected between the first resistance (R1) and via a
7 further resistance (R0) to the emitter of the first White's
8 emitter follower, between the further resistance (R0) and
9 the bases of the second White's emitter follower a second
10 capacitor (C0) being connected to the ground (GND).

1 Claim 5 (canceled).

1 6. (new) A circuit arrangement according to claim 1,
2 characterized in that the level transistor (T0) and/or the
3 first NPN transistor (T1) and/or the first PNP transistor

4 (T2) and/or the second NPN transistor (T3) and/or the
5 second PNP transistor (T4) are embodied as metal-oxide
6 field-effect transistors.

1 7. (new) A circuit arrangement according to claim 2,
2 characterized in that the level transistor (T0) and/or the
3 first NPN transistor (T1) and/or the first PNP transistor
4 (T2) and/or the second NPN transistor (T3) and/or the
5 second PNP transistor (T4) are embodied as metal-oxide
6 field-effect transistors.

1 8. (new) A circuit arrangement according to claim 3,
2 characterized in that the level transistor (T0) and/or the
3 first NPN transistor (T1) and/or the first PNP transistor
4 (T2) and/or the second NPN transistor (T3) and/or the
5 second PNP transistor (T4) are embodied as metal-oxide
6 field-effect transistors.

1 9. (new) A circuit arrangement according to claim 4,
2 characterized in that the level transistor (T0) and/or the
3 first NPN transistor (T1) and/or the first PNP transistor
4 (T2) and/or the second NPN transistor (T3) and/or the
5 second PNP transistor (T4) are embodied as metal-oxide
6 field-effect transistors.

[REMARKS FOLLOW ON NEXT PAGE]